

### Remarks

The invention is directed to an assembly for dispensing a liquid to the mouth of animal, on demand, comprising a container and a valve arrangement. The claims of the application have been amended to better distinguish over the prior art.

More particularly, Claims 1 through 8, drawn specifically to the valve arrangement, have been cancelled. Amended claim 9 incorporates the subject matter of Claims 21 and 22, which have also been cancelled, and the dependency of Claim 23 has been amended accordingly. Claim 20 has been restricted to define the portion of the container pierced as being the membrane of the seal means, consistent with amended claim 9.

New claim 25 defines the container as being arranged to be secured to a structure associated with the animal; new claim 26 defines the valve arrangement as being adapted to be secured to a structure associated with the animal by various means, recited at page 18, line 14, through page 19, line 2, of the specification; new claim 27 recites a finger-grip arrangement, referred to at page 1, lines 9 to 11; new claim 28 defines the first tube portion of the valve arrangement as having at least one sharply angled region, disclosed at page 7, lines 4 to 8 and in Figures 1 to 7 of the drawings; and new claim 29 recites a non-return valve, actuated by the animal, as set forth at page 8, lines 4 to 9, of the specification.

Claims 1 to 6, 8 to 11 and 15 to 24 of the application stand rejected as being anticipated by, or obvious over, U.S. patent No. 5,816,194, to Huff. The remaining claims are deemed to have been obvious over Huff in combination with U.S. patent No. 5,065,700, to Cross, or U.S. patent No. 5,163,923, to Donawick et al.

Huff discloses a rigid water bottle system in which a water spout 16a is attached to a closure cap 12 of the water bottle 11, and a valve 17 is provided extending out of the spout. The valve is provided with an end adapted to be used by the animal and a valve means adapted to be

actuated by the animal, to permit the flow of liquid from the container to the animal. An alternative embodiment is described as having the valve extending from a water supply pipe 24 (column 3, lines 6 to 10, and Figure 2).

There does not appear to be any disclosure in Huff of a valve arrangement comprising a first tube portion for piercing any element associated with the container, for receiving the liquid. The means for supplying liquid to an animal generally involves the entry of liquid into the tubular spout that extends from the closure cap, and the exit of liquid from the spout to an animal, via the valve arrangement provided, when the valve is activated (column 2, lines 54 to 62, and Figure 1).

Nevertheless, Claim 9 has been amended to further emphasize the distinctions of the present invention over the prior art. Claim 9 requires the container to include an extending connecting tube, which connecting tube contains seal means in the form of a membrane. It also requires the valve arrangement to be in the form of a first tube portion for piercing the seal means membrane to receive the liquid from the container and permit flow of the liquid to an animal.

Clearly, neither Claim 9, nor any claim dependent from it, is anticipated by the patent to Huff. Moreover, the subject matter would not have been obvious to one of ordinary skill in the art over the same reference.

As noted on pages 1 and 2 of the specification, an object of the present invention is to provide an assembly for dispensing liquids to an animal which facilitates the provision of liquid from a container with minimal risk of contamination when, for example, replacing the liquid supply. According to the present invention, as defined in amended claim 9, this is accomplished by means of a container with a connecting tube having a membrane-form seal means to be pierced, and a membrane-piercing valve arrangement, thereby enabling ready removal and replacement of the container.

Huff does not disclose or suggest means by which the risk of contamination of a liquid source can be reduced, for example, when changing a liquid supply. The patent discloses only that the bottle-form container be provided with a screw-fastened closure cap. A person skilled in the art would understand that the closure cap should be removed to allow the bottle to be refilled, rather than being discarded and replaced, giving rise to the opportunity for contamination of the liquid within the bottle during replenishment. In contrast, the provision of a container-piercing valve arrangement and a container with a membrane-form seal means, as required by amended claim 9, would allow replacement of empty containers without the need to remove the valve arrangement.

Indeed, there is no disclosure in or suggestion by Huff that the valve arrangement is detachable from the spout which is attached to the closure cap of the container. Replenishment of liquid in the bottle would therefore require removal of the entire assembly of bottle and valve from, for example, the wall of the animal's cage, and replacement of the assembly following replenishment of the liquid. Removal of the container alone would not be feasible, and any attempt to do so would give rise to leakage and the opportunity for contamination.

Neither of the secondary references cures the fundamental deficiencies of Huff, so as to render any claim of the application obvious.

The patent to Cross is cited by the Examiner only for its disclosure of a spring used in conjunction with a pin. It is noted moreover that Cross provides a specific arrangement for an animal watering valve assembly, comprising a shutter arrangement that serves to prevent material being stuffed into the valve assembly by an animal using it. Also, the valve is provided with pipe threads 4 so as to permit it to be connected to a manifold water supply pipe 69 (column 2, lines 32 to 34).

Thus, not only does Cross fail to teach or suggest the presently claimed means for reducing the risk of contamination of a liquid source, but indeed the reference is concerned specifically with piped water supplies. As described on page 2, lines 13 to 17, of the present specification, automated watering systems, in which water is piped around a building, require flushing to avoid contamination.

The patent to Donawick et al. discloses an intravenous drip system for administering fluids to an animal, via an embedded needle. The reference is cited by the Examiner only for its disclosure of a collapsible container, and obviously it neither addresses the problems to which the present invention is directed nor does it teach or suggest the novel arrangement that Applicant has provided.

Applicant comments as follows upon the unapplied references made of record, expressly noting however that none teaches or suggests the invention of Claim 9:

United Kingdom Patent Publication No. 2200726 (Hosteller) discloses a watering device for fowl and small animals, which comprises a valve housing with specified features for preventing clogging of the fluid flow by debris particles.

U.S. Patent No. 4,819,585 (Dolan) discloses a nipple-type animal watering device having an adjustable flow rate, and freeze protection.

U.S. Patent No. 5,131,622 (Chang) discloses a metering valve for a water faucet triggered by a trip system that is manually activated.

U.S. Patent No. 6,058,881 (Thompson) discloses a watering device for birds and small animals in which the quantity of water provided by the device depends upon the level of input force applied by the bird or animal.

U.S. Patent No. 6,339,998 (Niki) discloses a water feed device for small animals, comprised of a water feed member sheathed within a sheathing pipe, which is in turn provided within

a protective pipe. The arrangement allows water to be supplied via the sheathing pipe even if debris is introduced into the aperture between the pipes.

U.S. Patent No. 6,739,283 (Lin) discloses a water dispenser valve for connection to a water supply.

U.S. Patent No. 6,748,899 (Momont et al.) discloses a hollow stem, formed of coiled material, for use as a watering nipple for poultry.

U.S. Patent No. 5,884,563 (Johnston) discloses a method for administering medicaments to a plurality of animal drinking stations. A single medicament reservoir is disclosed, connected to a plurality of drinking stations via drip chambers and tube splitters.

In view of the foregoing, it is respectfully submitted that all claims of the instant application define an assembly that is novel and patentable over the prior art. Withdrawal of the rejections, and passage of the application to allowance, are believed to be clearly in order; such actions are earnestly solicited.

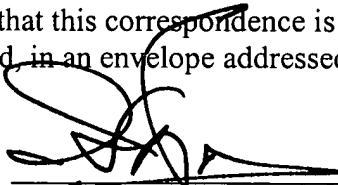
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#### CERTIFICATE OF MAILING

I, IRA S. DORMAN, hereby certify that this correspondence is being deposited with the United States Postal Service, postage prepaid, in an envelope addressed as set forth on the first page hereof, on November 29, 2004.



cc: Derek C. Jackson, Esq.  
(P0795)